UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/511,815	10/19/2004	Toni Kopra	KOLS.152US	8824

7590 02/04/2009

Hollingsworth & Funk, LLC
Suite 125
8009 34th Avenue South
Minneapolis, MN 55425

EXAMINER	
LU, ZHIYU	
ART UNIT	PAPER NUMBER
2618	
MAIL DATE	DELIVERY MODE
02/04/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/511,815	KOPRA ET AL.	
	Examiner	Art Unit	
	ZHIYU LU	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 November 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 11/07/2008 have been fully considered but they are not persuasive.

Regarding amended claims 1, 11 and 21, applicants argued that Nakatsuyama does not teach presenting the index data to a user and the Electronic Program Guide (EPG) of Billmaier is at least not presented at a given moment in time that is determined based on the attachment of the EPG to a broadcasting time line. In contrast, the EPG is displayed in response to a user's request. Moreover, no teachings from either reference have been asserted as corresponding to the limitations directed to sending the content item on a channel parallel to the channel used for broadcasting the broadcast media stream.

However, the Examiner does not agree. Despite the argument, there is no limitation in claims to restrict a user from activating EPG display by pressing a designated "Radio EPG" button. It's an obvious procedure in the same sense that a TV or a radio needs to be turned on first in order to display or play the broadcasting program. Also, Billmaier discloses that the designated "Radio EPG" button *may be* provided (column 5 line 12 column 6 line 6), where obviously the EPG could be displayed without the designated "Radio EPG" button. One of ordinary skill in the art would understand that it depends on the capability of user's device on whether to receive and/or to display the EPG. In any case, the EPG is broadcasted (Fig. 1, column 4 line 59 to column 5 line 6). Likewise, Nakatsuyama discloses a direct transmission between central station and user's device in broadcasting index data and program data (Fig. 1), where the broadcastings are parallel (column 7 lines 57-58). On the argument on the timing of

presentation of the EPG, activation of EPG display at user's device does not obscure the broadcasting of the EPG as explained above. Clearly, Billmaier does show textual information on current broadcasting program (Fig. 2, e.g. programs being broadcasted from different stations in the 2:00PM time slot at current time 2:05PM), which means that the EPG does follow the broadcasting time line. So, one of ordinary skill in the art would have obviously recognized the merit of the EPG of Billmaier in displaying textual information of broadcasting programs to user and incorporated into the method of Nakatsuyama, in order to provide users viewable information on broadcasting programs.

Thus, the rejections are proper and maintained.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-4, 6, 8-14, 16, 18-24 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakatsuyama (US Patent#6658231) in view of Billmaier (US Patent#7076202).

Regarding claim 11, Nakatsuyama teaches a media system comprising:

A broadcasting system configured to broadcast a broadcast media stream (abstract);

a radio system (34 of Fig. 1) communicating with the broadcasting system (12 of Fig. 1) and one or more user terminals (40 of Fig. 1),

the broadcasting system is further configured to attach one or more content items (index data) to a broadcasting time line of the broadcast media stream in the broadcasting system (Fig. 1, column 7 lines 57-65);

the user terminal is configured to synchronize an internal time of the user terminal with the internal time of the broadcasting system (Fig. 1, column 7 lines 45-53);

the radio system is configured to send the content item attached to the broadcasting time line of the broadcast media stream to the user terminal (36 of Fig. 1, column 7 lines 57-65); and

the user terminal is further configured to present the received content item in the user terminal during the presentation of the broadcasted broadcast media stream and at a given moment in time that is determined based on the attachment of the content item to the broadcasting time line and on the synchronization of the internal time of the user terminal with the internal time of the broadcasting system (column 7 lines 57-65, where both the index data signal and the program data signal are broadcasting continuously, separately and on a time line). But, Nakatsuyama does not expressly disclose the index data comprising at least one of text, audio, video, and multimedia presentation.

Billmaier teaches an electronic program guide used in broadcasting that provides interactive program information to user (column 3 lines 11-31, column 5 lines 12-23).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate using an interactive electronic program guide taught by Billmaier into

the media system of Nakatsuyama, in order to provide user selection convenience with interactive audible and/or viewable information about broadcasting programs.

Regarding claim 1, Nakatsuyama and Billmaier teach a method as explained in response to claim 11 above.

Regarding claim 21, Nakatsuyama and Billmaier teach a user terminal of a radio system configured to:

synchronize the internal time of the user terminal with the internal time of a broadcasting system (column 7 lines 45-53);

receiving one or more content items through the radio system which content items are attached to a broadcast media stream of the broadcasting system (column 7 lines 57-65); and

present the received content items attached to the broadcast media stream during the presentation of the broadcasted broadcast media stream and at a given moment in time that is determined based on the synchronization of the internal time of the user terminal with the internal time of the broadcasting system (column 7 lines 57-65, column 8 lines 35-63).

Regarding claims 2, 12 and 22, Nakatsuyama and Billmaier teach the limitations of claims 1, 11 and 21.

Nakatsuyama teaches further comprising sending synchronization data to the user terminal for synchronizing the internal time of the user terminal with the internal time of the broadcasting system and synchronizing the internal time of the user terminal based on the received synchronization data (Fig. 1, column 7 lines 45-53).

Regarding claims 3 and 13, Nakatsuyama and Billmaier teach the limitations of claims 1 and 11. Nakatsuyama teaches further comprising synchronizing the internal time of the radio system with the internal time of the broadcast system (inherent in Fig. 5 and column 11 line 49 to column 12 line 50) and sending the synchronization data from the radio system to the user terminal (column 13 lines 38-45).
Note that time synchronization data is sent via radio system to terminal and program data is broadcasted via broadcast system according to the same time data, furthermore both systems are within the same main system, internal time synchronization is thus inherited.

Regarding claims 4, 14 and 23, Nakatsuyama and Billmaier teach the limitations of claims 2, 12 and 22.
Nakatsuyama teaches further comprising sending synchronization data with the broadcast media stream broadcasted by the broadcasting system to the user terminal (column 13 lines 38-45).

Regarding claims 6, 16 and 24, Nakatsuyama and Billmaier teach the limitations of claims 1, 11 and 21.

Nakatsuyama teaches synchronization of the internal time of the user terminal with the internal time of the broadcasting system comprises executing a synchronization algorithm in the user terminal (Figs. 1 and 5, column 7 lines 45-53, column 13 lines 38-45).

Regarding claims 8 and 18, Nakatsuyama and Billmaier teach the limitations of claims 1 and 11. Billmaier teaches the content item comprises one or more of the following: a text, an audio, a video, an image, a multimedia presentation, and a series of these or any combination thereof (column 5 lines 12-23).

Regarding claims 9, 19 and 26, Nakatsuyama and Billmaier teach the limitations of claims 1, 11 and 21.

Nakatsuyama teaches the content item comprises an object identification of an object and the method further comprises sending a transaction signal with the object identification from the user terminal to the radio system and delivering the object of the object identification to the user terminal through the radio system (column 12 lines 18-50).

Regarding claims 10 and 20, Nakatsuyama and Billmaier teach the limitations of claims 1 and 11.

Nakatsuyama and Billmaier teach further comprising attaching the content item to the broadcast media stream by defining the content item's availability to the presentation prior, during and after the broadcast of the broadcast media stream (column 7 lines 57-65, column 9 lines 12-67 of Nakatsuyama, column 3 lines 16-31 of Billmaier).

3. Claims 5 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakatsuyama (US Patent#6658231) in view of Billmaier (US Patent#7076202) and Lake et al. (US Patent#6975835).

Regarding claims 5 and 15, Nakatsuyama and Billmaier teach the limitations of claims 4 and 14. But, Nakatsuyama and Billmaier do not expressly disclose further comprising using a Radio Data System (RDS) for sending the synchronization data from the broadcasting system.

Lake et al. teach using a Radio Data System (RDS) for sending the synchronization data from the broadcasting system (column 1 lines 35-40, column 2 lines 35-42).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate using a RDS for sending the synchronization data from the broadcasting system of Lake et al. into the method and media system of Nakatsuyama and Billmaier, in order to utilize national broadcasting standard for sending digital information.

4. Claims 7, 17 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakatsuyama (US Patent#6658231) in view of Billmaier (US Patent#7076202) and Kelly et al. (US2002/0105976).

Regarding claims 7, 17 and 25, Nakatsuyama and Billmaier teach the limitations of claims 6, 16 and 24.

But, Nakatsuyama and Billmaier do not expressly disclose the synchronization algorithm comprise: sending signals from the user terminal to the radio system; calculating round trip delays of said signals; calculating the difference between the internal times of the user terminal and the radio system; and synchronizing the internal time of the user terminal based on the calculated difference between the internal times.

Kelly et al. teach a synchronization algorithm comprise: sending signals from the user terminal to the radio system; calculating round trip delays of said signals; calculating the difference between the internal times of the user terminal and the radio system; and synchronizing the internal time of the user terminal based on the calculated difference between the internal times (paragraphs 0025-0026).

Therefore, it would have been obvious to one of ordinary skill in the art to incorporate the synchronization algorithm of Kelly et al. into the method and media system of Nakatsuyama and Billmaier, in order to provide accurate time synchronization.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ZHIYU LU whose telephone number is (571)272-2837. The examiner can normally be reached on Weekdays: 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on (571) 272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Zhiyu Lu/
Examiner, Art Unit 2618

/Z. L./
Examiner, Art Unit 2618
January 28, 2009

/Duc Nguyen/
Supervisory Patent Examiner, Art Unit 2618